

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Insecta Mundi

Center for Systematic Entomology, Gainesville,
Florida

January 1985

Covers Volume 1

Follow this and additional works at: <https://digitalcommons.unl.edu/insectamundi>



Part of the [Entomology Commons](#)

"Covers Volume 1" (1985). *Insecta Mundi*. 508.
<https://digitalcommons.unl.edu/insectamundi/508>

This Article is brought to you for free and open access by the Center for Systematic Entomology, Gainesville, Florida at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Insecta Mundi by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

INSECTA MUNDI

VOLUME 1

JANUARY 1985

No. 1

CONTENTS

- COLEOPTERA - Spilman: Review of *Lanelater* of North America (Elateridae) pp. 1-12
- LEPIDOPTERA - Heppner: West Indies *Brenthia* (Choreutidae) pp. 13-26
- COLEOPTERA - Vick and Roman: Elevation of *Cicindela nigrrior* to species rank (Cicindelidae) pp. 27-28
- NEUROPTERA - Stange and Miller: A generic review of the Acanthaclisine antlions based on larvae (Myrmeleontidae) pp. 29-42
- LEPIDOPTERA - Miller: A review of the genus *Ebusus* with the description of a new subspecies from Mexico (Hesperiidae) pp. 43-45
- CALL FOR AUTHORS AND SUBSCRIBERS TO INSECTA MUNDI p.46
- HYMENOPTERA - Bohart: A key to the Australian *Chrysis* with description of new species (Chrysididae) pp. 47-52



**Flora & Fauna
Publications**

4300 NW 23rd Avenue, Suite 100
Gainesville, Florida 32606 USA

INSECTA MUNDI

(A SERIAL FOR INSECT SYSTEMATICS OF THE WORLD)

This is an irregularly published serial for the prompt publication of short papers on the systematics of insects of the world, including descriptions of new taxa, informal taxonomic notes, bibliographies, checklists, catalogs, and reviews. New literature is announced and reviewed. Selected news items of general interest are published as space permits. In addition to these features, announcements and advertisements are accepted, either as paid classified ads or as box insertions. Rates will be sent when requested. Free research notices and other noncommercial notices are published at the discretion of the editors.

The editors of this series wish to provide authors with **early publication (within 3 months)** of papers dealing with species of insects, especially data to be included in catalogs and books.

Page charges. Because papers are printed from camera ready copy (CRC) **no page charges** are made. However, in place of page charges **all authors are required to subscribe** to the series (see "subscriptions" at the end.)

Editing. To save time we ask and expect authors to obtain peer group subject reviews. Therefore, each author is fully responsible for the contents of the article.

Distribution. The series has worldwide distribution in entomology libraries and among actively publishing taxonomists. Therefore we print 1,000 copies of each issue.

Editorial Board: Ross H. Arnett, Jr., Virendra Gupta, John B. Heppner, Lionel A. Stange, Michael C. Thomas, and Robert E. Woodruff.

Send manuscripts and queries to any of the above at: The Florida State Collection of Arthropods, P. O. Box 1269, Gainesville, FL 32602 USA.

Instructions to Authors

All papers are printed from CRC, either supplied by the author or prepared by the publisher. If the author cannot supply CRC this will be provided by the publisher at cost. The editors will be responsible for layout and page assembly.

Papers submitted for consideration should not have been published previously and are not to be offered simultaneously to any other journal. Papers may be in English, French, German, Italian, Portuguese, or Spanish and if other than English, an English summary is requested.

Reports. The text of the paper may be submitted in manuscript form for consideration for publication. Authors will be notified within two weeks whether or not the paper is suitable for publication in the journal. Decisions will be made on the basis of the suitability of the paper for this series, not as peer group judgement. Instructions for the preparation of camera ready copy are available separately and will be sent on request or when the paper is accepted for publication. These instructions must be followed.

Illustrations. Figures and captions will be marked for the proper size for the printer and inserted in the right position by the editor. However, authors are asked to assemble the illustrations as plates, either as partial or full page plates. Figure and plate numbers and captions must be added by the author.

Halftones. The economical printing process used for this series does not produce acceptable halftone illustrations. Authors wishing to publish halftone illustrations are asked to pay for the additional printing cost.

Suggestions for format. Each article should start with an introduction that describes the scope and purpose of the paper. This is not to be considered a summary or abstract of the paper. If the author desires an abstract, this must be added at the end of the article. Abstracts must be complete in themselves, not a description of the article, but contain factual information. Instructions for the preparation of an abstract will be supplied on request.

When new taxa are described, the International Rules of Zoological Nomenclature must be followed. Each new taxon must be illustrated and included in a new key or as addendum to an existing key. The only exception to this is the publication of a replacement name for a homonym, or for a new combination of a species or subspecies. The location of the type material of new species must be stated. Type species of each genus should be stated, with the manner of designation and reference to the designation.

Distribution data may be summarized, except for new taxa or in the case of comprehensive studies of species, where full data from labels may be given, including the names of collections in which the specimens are deposited.

References should be cited in a separate bibliography at the end of the article according to the following format:

Southgate, B. L., and Brown, R. T. 1975. Descriptions of new species of *Xus* from South America (Coleoptera: Curculionidae). Journ. Kansas Zool. Soc. 29:273-314.

References to this article in the text should be given as (Southgate and Brown 1975). In catalogs or checklists, the reference should be given as follows:

Xus Southgate and Brown 1975:296.

Illustrations. Line drawings should be in black ink on white board or good quality drawing paper glued to white boards to make a plate to be reduced. Other media suitable for black and white reproduction may be used (color may be used only at the author's expense). Care must be taken to assure that all lines and shading will reproduce properly at the normal reductions required for 3 5/16 inch wide column or a 7 inch wide page. Lettering which is to be reduced should be large enough to be no less than 8 point type when printed. Guide lines and pencil marks should be erased unless they are in nonreproducible blue. It is preferred that drawings and photographs not be mixed. Original sizes of insects or parts should be indicated by a mm scale line on the illustration which will be reduced with the drawing.

Separates. Ten separates of the article are supplied free of charge. Additional copies may be ordered when the article is submitted. Prices will be given when the article is accepted.

SUBSCRIPTION

Because there are no page charges to authors, **all authors are required to subscribe** to the series. The cost of each complete volume of approximately 288 pages of text is \$25.00. Subscriptions are payable in advance. (Should an author desire to pay the full cost of publication, no subscription is required.)

THIS SERIES IS PUBLISHED BY:
FLORA & FAUNA PUBLICATIONS
4300 NW 23rd Avenue, Suite 100
Gainesville, Florida 32606 USA

FLORA & FAUNA HANDBOOK SERIES

Our handbook series provides for the publication of works longer than those published in *Insecta Mundi*. These books are usually at least 96 pages (an economical number of pages to publish). Each book is separately numbered, starting with "Handbook No. 1" as a continuing series. The books are designed to be sold by advanced subscription (at a reduced price) but may be ordered separately. Subscribers receive a substantial discount. Volumes are individually priced according to size.

Each book covers a single taxonomic group or ecological subject. Books treating the systematics of a single group of organisms (e.g., a family, sometimes a single genus) are most frequent. Books on the ecology of certain organisms or certain regions are planned. Catalogs and checklists of groups not covered in our other series will be included here.

The book must be complete by itself, not a continuation or supplement to an existing work, or requiring another work in order to use this one. The books must be comprehensive, and hence, of more general interest than most journal articles.

The first book in the series, "The Sedge Moths" treats the species of these moths that occur in North America. The second, "The Potato Beetles," considers the taxonomy and ecology of the entire genus *Leptinotarsa*, and includes information about their hosts plants. The adults of all species are illustrated in black and white and color. Many of the host species are also illustrated. The third work is a book by Pierre Jolivet entitled "Insect and Plants," the results of a lifetime of study of the coevolution of plants and insects. Another book in the series is the directory entitled "Insect and Spider Collections of the World." This work lists and describes over 600 public and private insect and spider collections. The work is nearing completion. Yet it is not too late to be included. Write for forms; specify whether the collection is private or public. Several others works are planned and are being considered for publication.

Authors are invited to write to the publishers for further details. Acceptable works will be published after contractual agreements have been signed. This contract includes provisions for **royalty** payments. There are obviously **no page charges**—instead, we pay the author! Potential authors should request our flyer entitled "Our Book Publishing Plan."

Of interest to all book buyers, private and institutional, is the fact that the handbooks are usually priced, for subscribers, between \$10.00 and \$24.00. The price for non-subscribers is somewhat higher for each volume.

BUY NEW BOOKS AT A DISCOUNT

We stock books about KINDS of plants and animals, books that feature species of organisms, particularly field books (we stock a complete series of field books). Books on ecology, environment, floras, handbooks dealing with certain groups of plants and animals, books describing organisms from all parts of the world, catalogs describing these organisms, sometimes new textbooks, and other natural history topics. These are available to you from this single source. Some books treating the practical aspects of these sciences are included, but as a rule we restrict our list to those books we think are of interest to the systematist, ecologist, and naturalist. We may even include cookbooks. One we know of treats fish as fish as well as something to eat, and of course, we will always be interested in books dealing with insects and other good things to eat!

We do NOT stock (usually) nature story books, although we might make an exception in some cases. Only certain types of garden books are stocked—those that treat plants as plants are included, but usually not the "how to do it" books.

Sometimes we offer, at bargain prices, publisher's remainders, so watch for these. Often publishers want to clear their warehouses of books to make room for more. It costs money to store books, sometimes making it cheaper to sell the books at below cost to save storage expenses. We hunt for these bargains, and pass the savings on to you.

In order to obtain a discount you must order books promptly -- we have to know how many copies are needed to give you the best price. (Many people do not realize that books are priced, not by the number of pages, but by how many copies can be sold. The first copy costs many thousands of dollars, the second copy half that, and so on. Obviously then, the more copies that are ordered, the less each person will have to pay.)

Please return the form telling us of your interests. With these data we endeavor to find the books you want to have in your library or the library of your institution.

Many of the books we offer have not been printed at the time we list them. Therefore, look closely at the "book available" date. As we are sure you know, package delivery is slow. If you have to wait four or more weeks for a book, please understand. BUT if you are concerned, feel free to write or call about your order.

NOTE: In the following list the **first** price given is the **list price**; the second price is **YOUR DISCOUNT PRICE**!

General and Reference

0101 Wilson: BIOPHILIA, 1984, 159 pp., cloth.	\$15.00/\$13.25
0110 THE NATURALISTS' DIRECTORY AND ALMANAC (INTERNATIONAL), 43rd ed., 310 pp. + SUPPLEMENT, 80 pp. (Set complete)	\$20.00/\$16.00
0111 Back editions of the above, 1 to 42 (some as photocopies), each	\$19.00/\$17.10

(Continued on outside back cover)

BUY NEW BOOKS AT A DISCOUNT

(Continued from inside back cover)

- 0112 THE NATURALISTS' DIRECTORY AND ALMANAC (INTERNATIONAL) 44th ed., Part 1, INSECT COLLECTORS AND IDENTIFIERS, (Available soon). \$12.95/\$10.36
 0114 Fine: EXPLORING THE SEA, 152 pp., color & B/W photos, cloth. \$14.95/\$13.00
 0120 Wood: GUINNESS BOOK OF ANIMAL FACTS & FEATS, 3rd ed., 1982, 252 pp., cloth. ... \$19.95/\$18.00

Ecology

- 2431 Price: INSECT ECOLOGY, 2nd ed., 607 pp., cloth. \$37.50/\$31.25
 2433 Frank & Lounibos: PHYTOTELMATA, TERRESTRIAL PLANTS AS HOSTS FOR AQUATIC INSECT COMMUNITIES, 1983, 293 pp., paper. \$24.95/\$21.50

Insects (General)

- 2440 Arnett: AMERICAN INSECTS, A Handbook of the Insects of America north of Mexico, 1985, 850 pp., 1250 illus., cloth. \$79.50/\$75.00
 2442 Belkin: FUNDAMENTALS OF ENTOMOLOGY, 1976. Part I: iv+156 pp.; part 2, illustrations, pp. 157-220, complete, paper. \$12.95/\$10.00
 9812 Arnett: ENTOMOLOGICAL INFORMATION STORAGE AND RETRIEVAL, 1970, 210 pp., cloth. \$7.95/\$5.95
 2451 Arnett & Jacques: A GUIDE TO INSECTS, 512 pp., 400 full color illus., paper. \$9.95/\$8.50
 2472 Wootton: INSECTS OF THE WORLD, 1984, 224 pp., cloth. \$17.95/\$16.00

Insects (Coleoptera)

- 3611 CHECKLIST OF THE BEETLES OF NORTH AND CENTRAL AMERICA AND THE WEST INDIES, complete in 10 vols. in 3-post binder, 2173 pp. \$275.00/\$250.00 (Individual volumes available separately, write for brochure and price list)
 3621 Arnett, Downie, & Jaques: HOW TO KNOW THE BEETLES, 2nd ed., 416 pp., paper. \$15.95/\$13.50
 3640 Crowson: BIOLOGY OF THE COLEOPTERA, 1981, 802 pp., cloth. \$139.00/\$125.00
 3651 Patent & Schroeder: BEETLES AND HOW THEY LIVE, 1978, 159 pp., cloth. \$7.95/\$7.00
 3657 White: FIELD GUIDE TO THE BEETLES, 1982, paper. \$10.95/\$8.75
 3662 Wilcox: HOST PLANTS OF CHRYSOMELIDAE OF NORTH EASTERN NORTH AMERICA, 30 pp. \$4.95/\$2.00

Insects (Lepidoptera)

- 3812 Covell: FIELD GUIDE TO THE MOTHS OF EASTERN NORTH AMERICA, 1984, paper. \$13.95/\$11.50
 3822 Hodges: CHECKLIST OF THE LEPIDOPTERA OF AMERICA NORTH OF MEXICO, 284 pp., paper. \$88.00/\$79.20
 4021 D'Abrera: BUTTERFLIES OF SOUTH AMERICA, 1984, 256 pp., 700 figs in full color, paper. \$19.50/\$16.00
 4027 D'Abrera: BUTTERFLIES OF THE NEOTROPICAL REGION, Part II (Danidae, Ithomiidae, Heliconidae, Morphidae), 344 pp., cloth. \$155.00/\$131.75

Insects (Diptera)

- 4206 Harbach and Knight: TAXONOMISTS GLOSSARY OF MOSQUITO ANATOMY, 1980, 412 pp., 83 pls., cloth. \$29.95/\$24.00

Spiders

- 2250 Preston-Mofham: SPIDERS OF THE WORLD, 1984, 224 pp., cloth. \$17.95/\$16.25

Plants, General

- 7421 Elias & Dykman: FIELD GUIDE TO NORTH AMERICAN EDIBLE WILD PLANTS, 1982, 286 pp., 350 color photos, cloth. \$22.95/\$20.50
 7460 Zomlefer: COMMON FLORIDA ANGIOSPERM FAMILIES, 1983, Part 1, 107 pp., paper. \$8.50/\$7.00
 6875 Roth: THE PLANT OBSERVER'S GUIDEBOOK, 1984, 222 pp., paper.

Trees

- 7621 Walker: TREES: AN INTRODUCTION TO TREES AND FOREST ECOLOGY FOR THE AMATEUR NATURALIST, 1984, 310 pp., paper. \$10.95/\$9.00
 7650 Elias: THE COMPLETE TREES OF NORTH AMERICA, Field Guide and Natural History, 1980, 948 pp., cloth. \$22.95/\$20.00

NEW FOR 1985

Books now in production:

- Heppner: THE SEDGE MOTHS \$27.95/\$22.35
 Jolivet: INSECTS AND PLANTS Price not set
 Jacques: THE POTATO BEETLES Price not set
 Naves: ANTS OF THE GENUS *PHEIDOLE* IN FLORIDA Price not set
 Arnett & Samuelson: THE INSECT AND SPIDER COLLECTIONS OF THE WORLD Early 1985, price not set
 Udayagiri & Wadhi: BRUCHIDAE, volume 8, part 130, COLEOPTERORUM CATALOGUS, approx. 250 pp., paper. \$30.00 list or \$24.00 by subscription

INSECTA MUNDI

(A Serial for Insect Systematics of the World)

This is an irregularly published serial for the prompt publication of short papers on the systematics of insects of the world, including descriptions of new taxa, informal taxonomic notes, bibliographies, checklists, catalogs, and reviews. Selected news items of general interest are published as space permits. In addition to these features, announcements and advertisements are accepted, either as paid classified ads or as box insertions. The editors of this series wish to provide authors with early publication (within 3 months of receipt of manuscripts). There are no page charges. For details on the preparation of material for publication, and other information about the series, turn to page 1 of this booklet.

Subscription price: \$25.00
 (Price is for one volume of approximately 288 printed pages, 8½ x 11 format. As soon as one volume is completed, another will be started. Volumes are NOT annual. Volume 1 is dated January 1985.)

PLEASE SEND ORDER TO:

FLORA & FAUNA BOOKS
 4300 NW 23rd Avenue, Suite 100
 Gainesville, FL 32606 U.S.A.

INSECTA MUNDI

VOLUME 1

MARCH 1985

No. 2

CONTENTS

- HYMENOPTERA - Naves: A Monograph of the genus **Pheidole** in Florida (Hymenoptera: Formicidae) 53-90
- HYMENOPTERA - Bohart: The **Chrysis gibba** species group in the New World (Hymenoptera, Chrysididae) 91-97
- DIPTERA: - Brown: Four undescribed Oligocene craneflies from Florissant, Colorado, (Diptera: Tipulidae) 98-100



**Flora & Fauna
Publications**

4300 NW 23rd Avenue, Suite 100
Gainesville, Florida 32606 USA

INSECTA MUNDI

(A SERIAL FOR INSECT SYSTEMATICS OF THE WORLD)

This is an irregularly published serial for the prompt publication of short papers on the systematics of insects of the world, including descriptions of new taxa, informal taxonomic notes, bibliographies, checklists, catalogs, and reviews. New literature is announced and reviewed. Selected news items of general interest are published as space permits. In addition to these features, announcements and advertisements are accepted, either as paid classified ads or as box insertions. Rates will be sent when requested. Free research notices and other noncommercial notices are published at the discretion of the editors.

The editors of this series wish to provide authors with **early publication (within 3 months)** of papers dealing with species of insects, especially data to be included in catalogs and books.

Page charges. Because papers are printed from camera ready copy (CRC) **no page charges** are made. However, in place of page charges **all authors are required to subscribe** to the series (see "subscriptions" at the end.)

Editing. To save time we ask and expect authors to obtain peer group subject reviews. Therefore, each author is fully responsible for the contents of the article.

Distribution. The series has worldwide distribution in entomology libraries and among actively publishing taxonomists. Therefore we print 500 copies of each issue.

Editorial Board: Ross H. Arnett, Jr., Virendra Gupta, John B. Heppner, Lionel A. Stange, and Robert E. Woodruff.

Send manuscripts and queries to any of the above at: The Florida State Collection of Arthropods, P. O. Box 1269, Gainesville, FL 32602 USA.

Instructions to Authors

All papers are printed from CRC, either supplied by the author or prepared by the publisher. If the author cannot supply CRC this will be provided by the publisher at cost. The editors will be responsible for layout and page assembly.

Papers submitted for consideration should not have been published previously and are not to be offered simultaneously to any other journal. Papers may be in English, French, German, Italian, Portuguese, or Spanish and if other than English, an English summary is requested.

Reports. The text of the paper may be submitted in manuscript form for consideration for publication. Authors will be notified within two weeks whether or not the paper is suitable for publication in the journal. Decisions will be made on the basis of the suitability of the paper for this series, not as peer group judgement. Instructions for the preparation of camera ready copy are available separately and will be sent on request or when the paper is accepted for publication. These instructions must be followed.

Illustrations. Figures and captions will be marked for the proper size for the printer and inserted in the right position by the editor. However, authors are asked to assemble the illustrations as plates, either as partial or full page plates. Figure and plate numbers and captions must be added by the author.

Halftones. Authors wishing to publish halftone illustrations are asked to pay for the additional cost of inserting these in place by the printer. This is a fee of \$10.00 per page or fraction thereof.

Suggestions for format. Each article should start with an introduction that describes the scope and purpose of the paper. This is not to be considered a summary or abstract of the paper. If the author desires an abstract, this must be added at the end of the article. Abstracts must be complete in themselves, not a description of the article, but contain factual information. Instructions for the preparation of an abstract will be supplied on request.

When new taxa are described, the International Rules of Zoological Nomenclature must be followed. Each new taxon must be illustrated and included in a new key or as addendum to an existing key. The only exception to this is the publication of a replacement name for a homonym, or for a new combination of a species or subspecies. The location of the type material of new species must be stated. Type species of each genus should be stated, with the manner of designation and reference to the designation.

Distribution data may be summarized, except for new taxa or in the case of comprehensive studies of species, where full data from labels may be given, including the names of collections in which the specimens are deposited.

References should be cited in a separate bibliography at the end of the article according to the following format:

Southgate, B. L., and Brown, R. T. 1975.

Descriptions of new species of *Xus* from South America (Coleoptera: Curculionidae). Journ. Kansas Zool. Soc. 29:273-314.

References to this article in the text should be given as (Southgate and Brown 1975). In catalogs or checklists, the reference should be given as follows:

Xus Southgate and Brown 1975:296.

Illustrations. Line drawings should be in black ink on white board or good quality drawing paper glued to white boards to make a plate to be reduced. Other media suitable for black and white reproduction may be used (color may be used only at the author's expense). Care must be taken to assure that all lines and shading will reproduce properly at the normal reductions required for 3 5/16 inch wide column or a 7 inch wide page. Lettering which is to be reduced should be large enough to be no less than 8 point type when printed. Guide lines and pencil marks should be erased unless they are in nonreproducible blue. It is preferred that drawings and photographs not be mixed. Original sizes of insects or parts should be indicated by a mm scale line on the illustration which will be reduced with the drawing.

Separates. Reprints of articles are unavailable unless ordered directly from the printer. One hundred separates may be ordered as cost when the article is submitted. Prices will be given when the article is accepted.

SUBSCRIPTION

Because there are no page charges to authors, **all authors are required to subscribe** to the volume in which their article(s) appear. The cost of each complete volume of approximately 288 pages of text is \$25.00. Subscriptions are payable in advance to:

FLORA & FAUNA PUBLICATIONS
4300 NW 23rd Avenue, Suite 100
Gainesville, Florida 32606 USA

AMERICAN INSECTS

A Handbook of the Insects of America north of Mexico

Ross H. Arnett, Jr., Ph.D.

Never before in the history of American entomology has there been a complete accounting of the insects of North America. This compact handbook written for agricultural extension agents, pest control operators, pest management field scouts, teachers, and advanced horticulturists, as well as professional and amateur entomologists is just that. Each will appreciate the:

- Descriptions of the orders of insects including those that are extinct
- Descriptions, identification keys, and discussion of the life history and biology of each family known to occur in Canada and the United States
- Lists of all known genera of the region, with the number of species assigned to each
- Over 7500 species including all of those that are pests and the common name of each
- Bibliography of all important works needed for the identification of the species known to occur in America north of Mexico.
- Practical techniques to help you collect, preserve, and breed your own specimens.

By using this guide you can quickly determine the taxonomic position of any species, genus, or higher taxon of insects known to occur in America. Every order, family, and

genus is conveniently numbered and indexed making this the only complete single source for all of the names of orders, families, and genera currently available. The most recent classifications used for American insects, based on the most recent literature, are found here. Complete family keys enable you to recognize any adult specimen collected on this continent north of Mexico, and to identify many to genus and species with the over 1200 photographs and drawings.

Budding entomologists will discover fascinating opportunities for exploration. If you want to build your own insect collection, turn to the author's expert advice on gathering, preserving, and propagating insects. His extensive references and precise instructions for using entomological literature will help you consult more specialized works. With **American Insects** in hand, entomologists, zoologists, students, and collectors everywhere now have a convenient source of reliable data on all insects.

About the author

Ross H. Arnett, Jr., Ph.D. (Cornell University) is a research taxonomist at the Florida State Collection of Arthropods and a cooperating scientist for the U. S. Department of Agriculture. He is also on the Board of Directors of the American Entomological Institute. Formerly a taxonomic entomologist at the Smithsonian Institution, and for many years a professor of entomology at Purdue University and elsewhere, he is also a freelance writer of books on insects and plants.

Cloth, 850 pp., 8½ x 11 format List price \$79.50

Exclusive book dealer:

AMERICAN BIOLOGICAL SUPPLY COMPANY, INC.
1330 DILLON HEIGHTS AVENUE
BALTIMORE, MD 21228 USA

PHONE: (301) 747-1797

Please ship _____ copies @ \$79.50 each, plus \$4.00 for shipping and handling, PAYMENT ENCLOSED. (Maryland residents please add 5% sales tax). **BOOKS IN STOCK READY FOR SHIPMENT.** Please allow four weeks for delivery. [INSTITUTIONAL AND LIBRARY ORDERS: Invoice will be sent upon receipt of your purchase order. Shipping charges will be added.]

Zip _____

CALL FOR AUTHORS AND SUBSCRIBERS TO "INSECTA MUNDI"

The first issue of a new series, *Insecta Mundi* is in the mail! This new series is for the publication of short papers on insect taxonomy. The issue contains a variety of articles, including ones on Lepidoptera, Coleoptera, Hymenoptera, and Neuroptera. In keeping with its name, *Insects of the World*, the areas covered in these papers include not only the United States, but Mexico, the West Indies, Australia, Europe, and Africa. The second issue, already at the printers, contains articles on ants and fossil insects.

We are providing this series for the publication of research on the taxonomy and biology of insects and spiders of the world. We are able to offer a publication that:

- Is free of page charges. (No more "vanity presses.")
- Promises publication within 90 days of receipt of manuscript. (Your data will be current rather than published a year or more after you wrote it; new taxa names available for immediate use in other publications, and so on.)
- Permits peer group reviewers of your own selection. (No more secret reviewers. Authors must accept the responsibility for what they publish.)

Please note: we expect authors to have their paper reviewed by their colleagues before it is submitted to us. These reviewers are to be acknowledged in the paper. Therefore, we consider this publication to have full peer group review and meet the requirements of most institutions as a fully refereed publication.

If you belong to the group of systematists who are ready to assume responsibility for what you publish, tired of page charges, and waiting for years to publish, why not try publishing in *INSECTA MUNDI*? Send us a paper today and it will be published within 90 days!

We have a free booklet of instructions on how to prepare camera ready copy and sample formats which will help you in the preparation of a paper for the series. More details are given on the masthead (inside front cover) of this booklet and each issue of the series.

In addition to formal papers, we will include research notices, requests for study specimens, news of activities of individuals and institutions, and certain book reviews.

There is a catch: In order to publish in this series, you must subscribe to at least one volume. That doesn't seem to be too much to ask for free publishing does it? Also, we charge for separates and there is a fee for halftones. If you have any questions not answered in this flyer, please write or call one of the following at: FLORIDA STATE COLLECTION OF ARTHROPODS, P.O. BOX 1269, GAINESVILLE, FLORIDA 32602, USA. (Phone 904-372-3505.)

Board of Editors: Ross H. Arnett, Jr., Virendra Gupta, John B. Heppner, Lionel A. Stange, and Robert E. Woodruff.

SUBSCRIPTIONS: This publication is not supported by any agency or society. We are entirely dependent on subscriptions for publication funds. Therefore, we hope you will wish to subscribe, and ask your library to subscribe. The cost per volume (not year) is \$25.00 for approximately 288 text pages. **The first issue will be sent immediately if you subscribe now. If you are not satisfied, return the issue and the invoice will be cancelled.** Please send subscription orders to: FLORA & FAUNA PUBLICATIONS, 4300 NW 23rd Avenue, Suite 100, Gainesville, FL 32606, USA.

INSECTA MUNDI

VOLUME 1

OCTOBER 1986

No. 3

CONTENTS

- DIPTERA — Steyskal: Taxonomy of the adults of *Strauzia* (Tephritidae) pp. 101-117
- COLEOPTERA — Staines: A Preliminary Checklist of the Hydradephaga of Maryland p. 118 and p. 155
- HYMENOPTERA — Brown: *Lithoserix williamsi*, a new fossil horntail (Siricidae) pp. 119-120
- COLEOPTERA — Thomas and Woodruff: Larvae of two species of *Hemipeplus* (Mycteridae) pp. 121-124
- HYMENOPTERA — Alsima: Los Pepsinae Sudamericanos, III. *Priocnemis* en Chile (Pompilidae) pp. 125-132
- HYMENOPTERA — Luhman: Revision of the Nearctic *Glyphicnemis* (Ichneumonidae, Gelinae) pp. 133-142
- LEPIDOPTERA — Miller and Miller: New Thecline from Sulawesi (Lycaenidae; Theclinae) pp. 143-145
- HOMOPTERA — Lambdin: Allotype of male scale *Sclerococcus chilensis* (Coccoidea: Aslerolecaniidae) pp. 146-147
- HYMENOPTERA — Bohart: *Praestochrysis* of the Ethiopian Region (Chrysididae) pp. 148-154
- COLEOPTERA — Parry: Systematics and Biology of *Crepidodera* in America north of Mexico pp. 156-196



**Flora & Fauna
Publications**

4300 NW 23rd Avenue, Suite 100
Gainesville, Florida 32606 USA

INSECTA MUNDI

(A SERIAL FOR INSECT SYSTEMATICS OF THE WORLD)

This is an irregularly published serial for the prompt publication of short papers on the systematics (in the broadest sense) of insects of the world, including descriptions of new taxa, informal taxonomic notes, bibliographies, checklists, catalogs, and reviews. New literature is announced and reviewed. In addition, announcements and advertisements are accepted, either as paid classified ads or as box insertions. Rates will be sent when requested. Free research notices and other noncommercial notices and news items are published at the discretion of the editorial board.

One purpose of this series is to provide authors with **early publication (within 6 months)** of papers dealing with new species of insects, especially those to be included in catalogs and books.

Page charges. Because papers are printed from camera ready copy (CRC) **no page charges** are made. However, in place of page charges **all authors are required to subscribe** to the series (see "subscriptions" at the end.)

Editing. In the interest of quality control, by common consent, these manuscripts are reviewed by the editorial board and by individuals with special expertise whose assistance is solicited by and acknowledged in the text by the author and/or by the editorial board. All articles are accepted or rejected by the majority of the editorial board. However, each author is fully responsible for the contents of the article.

Distribution. The series has worldwide distribution in entomology libraries and among actively publishing taxonomists. Therefore, at the present time, we print 500 copies of each issue.

Editorial Board: Ross H. Arnett, Jr. (Editor), Virendra Gupta, John B. Heppner, Lionel A. Stange, and Robert E. Woodruff.

Send manuscripts and queries to the editor at: E. J. Brill/Flora & Fauna Publications, 4300 NW 23rd Ave., Suite 100, Gainesville, FL 32608 USA.

Instructions to Authors

All papers are printed from CRC, either supplied by the author or prepared by the publisher. If the author cannot supply CRC this will be provided by the publisher at cost. **The editors will be responsible for layout and page assembly.** If 5 1/4 diskettes are available, these may be converted to type at no additional cost. Write for instructions.

Papers submitted should not have been published previously. Papers may be in English, French, German, Italian, Portuguese, or Spanish and if other than English, an English summary is requested.

Reports. The text of the paper may be submitted as photocopies of the manuscript for consideration for publication (if you wish these returned, please include return postage [in USA]). Authors will be notified within two weeks whether or not the paper is suitable for publication in the journal. No attempt will be made to provide extensive editing of the paper if needed; instead it will be rejected with the request it be reworked. Instructions for the preparation of camera ready copy are available separately and will be sent on request or when the paper is accepted for publication. These instructions must be followed.

Illustrations. Figures and captions will be used in the size submitted, or reduced to 90%, 75%, or 64% as needed and inserted in the right position by the editor. However, authors are asked to assemble the illustrations as plates, either as

partial or full page plates. Figure and plate numbers and captions should be of the proper size and must be added by the author.

Line drawings should be in black ink on white board or good quality drawing paper to make a plate to be reduced. Other media suitable for black and white reproduction may be used (color may be used only at the author's expense). Lettering which is to be reduced should be large enough to be no less than 8 point type when printed. Guide lines and pencil marks should be erased. It is preferred that drawings and photographs not be mixed. Original sizes of insects or parts should be indicated by a mm scale line on the illustration which will be reduced with the drawing.

Halftones. Authors wishing to publish halftone illustrations are asked to pay for the additional cost of inserting these in place by the printer. This is a fee of \$10.00 per page or fraction thereof.

Suggestions for format. Each article should start with an introduction that describes the scope and purpose of the paper. This is not to be considered a summary or abstract of the paper. If the author desires an abstract, **this must be added at the end of the article.** Abstracts must be complete in themselves, not a description of the article, but contain factual information. Instructions for the preparation of an abstract will be supplied on request.

The International Rules of Zoological Nomenclature must be followed. Each new taxon must be illustrated and included in a new key or as addendum to an existing key. The only exception to this is the publication of a replacement name for a homonym, or for a new combination of a species or subspecies. The location of the type material of new species must be stated. Type species of each genus should be stated, with the manner of designation and reference to the designation.

Distribution data may be summarized, except for new taxa or in the case of comprehensive studies of species, where full data from labels may be given, including the names of collections in which the specimens are deposited.

Cite references in a separate bibliography using the following format:

Southgate, B. L., and Brown, R. T. 1975. Descriptions of new species of *Xus* from South America (Coleoptera: Curculionidae). *Journ. Kansas Zool. Soc.* 29:273-314.

References to this article in the text should be given as (Southgate and Brown 1975). In catalogs or checklists, the reference should be given as follows:

Xus Southgate and Brown 1975:296.

Separates. Reprints of articles are available directly from the printer. Up to one hundred separates may be ordered at cost when the article is submitted. Prices will be given when the article is accepted.

SUBSCRIPTION

Because there are no page charges to authors, **all authors are required to subscribe** to the volume in which their article(s) appear. The cost of each complete volume of approximately 288 pages of text is \$25.00 to individuals, \$50.00 to libraries. Subscriptions are payable in advance to:

E. J. BRILL/FLORA & FAUNA PUBLICATIONS
225 West 57th St., Suite 404
New York, NY 10019 USA

ANNOUNCING MERGER OF



FLORA & FAUNA PUBLICATIONS

with

E.J. BRILL, Publisher, Leiden, Holland



The sponsoring company of "INSECTA MUNDI," Flora & Fauna Publications, has been purchased by E.J. Brill of Leiden, Holland as a totally owned branch of this old Dutch company (founded 1683). This makes us the oldest publishing company in the United States. A branch office has been opened in New York City (see new address, below).

"INSECTA MUNDI" will continue publication as in the past, except beginning in 1987 it will be issued quarterly. We plan to publish papers as soon as received, without further delays. Volume 1 is now complete and issues no. 3 and 4 will be mailed before the end of the year.

One notable addition is that copy will be set in type for each issue, IF we are provided with floppy discs of the article which can be edited in Gainesville (Wordstar, IBM compatible), or if the author follows editing instructions which we can provide (write for details). In these cases, typesetting is provided at no extra charge.

In addition to "INSECTA MUNDI," the following series and serials are published under the E.J. Brill/Flora & Fauna Publications imprint:

FLORA & FAUNA HANDBOOK SERIES

NATURALISTS' DIRECTORY & ALMANAC (INTERNATIONAL)

COLEOPTERORUM CATALOGUS

NORTH AMERICAN BEETLE FAUNA SERIES

LEPIDOPTERORUM CATALOGUS

ATLAS OF NEOTROPICAL LEPIDOPTERA

In addition to these books, E.J. Brill publishes dozens of other serials including FAUNA ENTOMOLOGICAL SCANDINAVICA, ENTOMOGRAPH, AUSTRALIAN JOURNAL OF ZOOLOGY SUPPLEMENTARY SERIES, and many, many more books on entomology and biology.

A complete catalog of publications of interest to our North American customers is being prepared. Books are stocked in the New York office. In addition, our publications are handled in offices in Bangladesh, India, Japan, Malaysia, Pakistan, London, and Tunisia.

Address all editorial matters to: Dr. Ross H. Arnett, Jr., Acquisitions Editor, E.J. Brill/Flora & Fauna Publications, 4300 NW 23rd Ave., Suite 100, Gainesville, FL 32606 USA. (Phone: 904-371-9858)

Orders should be sent to: E.J. Brill, Publishers, 225 West 57th St., Suite 404, New York, NY 10019 USA. (Phone: 212-757-7628)

The first of these is the fact that the
 government has been unable to
 maintain a stable currency. This
 has led to a loss of confidence
 in the government and a
 consequent loss of support
 from the people. The second
 is the fact that the government
 has been unable to maintain
 a stable economy. This has
 led to a loss of confidence
 in the government and a
 consequent loss of support
 from the people. The third
 is the fact that the government
 has been unable to maintain
 a stable society. This has
 led to a loss of confidence
 in the government and a
 consequent loss of support
 from the people.

ISSN 0749-6737

INSECTA MUNDI

VOLUME 1

DECEMBER 1986

No. 4

CONTENTS

- HYMENOPTERA - Kimsey: New species of *Adelphe* (Hymenoptera, Chrysididae) pp. 197-205
- HOMOPTERA - Medler: *Anzora* and *Dworena*, two new genera for Australian species (Homoptera, Fulgoridae) pp. 206-208
- COLEOPTERA - Selander: Rearing blister beetles (Coleoptera, Meloidae) pp. 209-220
- HYMENOPTERA - Kugler: Stings of ants of the tribe Pheidologetini (Myrmicinae) pp. 221-230
- COLEOPTERA - Staines: Revision of the genus *Brachycoryna* (Coleoptera, Chrysomelidae, Hispinae) pp. 231-241
- LEPIDOPTERA - Riotte: Supplement I to E. C. Zimmerman, "Insects of Hawaii" (Lepidoptera, Sphingidae) pp. 241-242
- HYMENOPTERA - Johnson: A North Florida ant fauna (Hymenoptera, Formicidae) pp. 243-246
- EPHEMEROPTERA - Hubbard: A catalog of the mayflies (Ephemeroptera) of Hong Kong pp. 247-254
- SCORPIONIDA - Sissom: *Diplocentrus colwelli*, a new species of scorpion from northern Mexico (Diplocentridae) pp. 255-258
- COLEOPTERA - Staines: A preliminary checklist of the Hydrophiloidea of Maryland pp. 259-260
- HYMENOPTERA - Hawkins and Gordh: Bibliography of the world literature of the Bethyloidea (Hymenoptera, Bethyloidea) pp. 261-283
- Instructions for producing camera ready copy (CRC) p. 284



**Flora & Fauna
Publications**

4300 NW 23rd Avenue, Suite 100
Gainesville, Florida 32606 USA

INSECTA MUNDI

(A SERIAL FOR INSECT SYSTEMATICS OF THE WORLD)

This is an irregularly published serial for the prompt publication of short papers on the systematics (in the broadest sense) of insects of the world, including descriptions of new taxa, informal taxonomic notes, bibliographies, checklists, catalogs, and reviews. New literature is announced and reviewed. In addition, announcements and advertisements are accepted, either as paid classified ads or as box insertions. Rates will be sent when requested. Free research notices and other noncommercial notices and news items are published at the discretion of the editorial board.

One purpose of this series is to provide authors with **early publication (within 6 months)** of papers dealing with new species of insects, especially those to be included in catalogs and books.

Page charges. Because papers are printed from camera ready copy (CRC) **no page charges** are made. However, in place of page charges **all authors are required to subscribe** to the series (see "subscriptions" at the end.)

Editing. In the interest of quality control, by common consent, these manuscripts are reviewed by the editorial board and by individuals with special expertise whose assistance is solicited by and acknowledged in the text by the author and/or by the editorial board. All articles are accepted or rejected by the majority of the editorial board. However, each author is fully responsible for the contents of the article.

Distribution. The series has worldwide distribution in entomology libraries and among actively publishing taxonomists. Therefore, at the present time, we print 500 copies of each issue.

Editorial Board: Ross H. Arnett, Jr. (Editor), Virendra Gupta, John B. Heppner, Lionel A. Stange, and Robert E. Woodruff.

Send manuscripts and queries to the editor at: E. J. Brill/Flora & Fauna Publications, 4300 NW 23rd Ave., Suite 100, Gainesville, FL 32608 USA.

Instructions to Authors

All papers are printed from CRC, either supplied by the author or prepared by the publisher. If the author cannot supply CRC this will be provided by the publisher at cost. **The editors will be responsible for layout and page assembly.** If 5 1/4 diskettes are available, these may be converted to type at no additional cost. Write for instructions.

Papers submitted should not have been published previously. Papers may be in English, French, German, Italian, Portuguese, or Spanish and if other than English, an English summary is requested.

Reports. The text of the paper may be submitted as photocopies of the manuscript for consideration for publication (if you wish these returned, please include return postage [in USA]). Authors will be notified within two weeks whether or not the paper is suitable for publication in the journal. No attempt will be made to provide extensive editing of the paper if needed; instead it will be rejected with the request it be reworked. Instructions for the preparation of camera ready copy are available separately and will be sent on request or when the paper is accepted for publication. These instructions must be followed.

Illustrations. Figures and captions will be used in the size submitted, or reduced to 90%, 75%, or 64% as needed and inserted in the right position by the editor. However, authors are asked to assemble the illustrations as plates, either as

partial or full page plates. Figure and plate numbers and captions should be of the proper size and must be added by the author.

Line drawings should be in black ink on white board or good quality drawing paper to make a plate to be reduced. Other media suitable for black and white reproduction may be used (color may be used only at the author's expense). Lettering which is to be reduced should be large enough to be no less than 8 point type when printed. Guide lines and pencil marks should be erased. It is preferred that drawings and photographs not be mixed. Original sizes of insects or parts should be indicated by a mm scale line on the illustration which will be reduced with the drawing.

Halftones. Authors wishing to publish halftone illustrations are asked to pay for the additional cost of inserting these in place by the printer. This is a fee of \$10.00 per page or fraction thereof.

Suggestions for format. Each article should start with an introduction that describes the scope and purpose of the paper. This is not to be considered a summary or abstract of the paper. If the author desires an abstract, **this must be added at the end of the article.** Abstracts must be complete in themselves, not a description of the article, but contain factual information. Instructions for the preparation of an abstract will be supplied on request.

The International Rules of Zoological Nomenclature must be followed. Each new taxon must be illustrated and included in a new key or as addendum to an existing key. The only exception to this is the publication of a replacement name for a homonym, or for a new combination of a species or subspecies. The location of the type material of new species must be stated. Type species of each genus should be stated, with the manner of designation and reference to the designation.

Distribution data may be summarized, except for new taxa or in the case of comprehensive studies of species, where full data from labels may be given, including the names of collections in which the specimens are deposited.

Cite references in a separate bibliography using the following format:

Southgate, B. L., and Brown, R. T. 1975. Descriptions of new species of *Xus* from South America (Coleoptera: Curculionidae). *Journ. Kansas Zool. Soc.* 29:273-314.

References to this article in the text should be given as (Southgate and Brown 1975). In catalogs or checklists, the reference should be given as follows:

Xus Southgate and Brown 1975:296.

Separates. Reprints of articles are available directly from the printer. Up to one hundred separates may be ordered at cost when the article is submitted. Prices will be given when the article is accepted.

SUBSCRIPTION

Because there are no page charges to authors, **all authors are required to subscribe** to the volume in which their article(s) appear. The cost of each complete volume of approximately 288 pages of text is \$25.00 to individuals, \$50.00 to libraries. Subscriptions are payable in advance to:

E. J. BRILL/FLORA & FAUNA PUBLICATIONS
225 West 57th St., Suite 404
New York, NY 10019 USA

ANNOUNCING MERGER OF



FLORA & FAUNA PUBLICATIONS

with

E.J. BRILL, Publisher, Leiden, Holland



The sponsoring company of "INSECTA MUNDI," Flora & Fauna Publications, has been purchased by E.J. Brill of Leiden, Holland as a totally owned branch of this old Dutch company (founded 1683). This makes us the oldest publishing company in the United States. A branch office has been opened in New York City (see new address, below).

"INSECTA MUNDI" will continue publication as in the past, except beginning in 1987 it will be issued quarterly. We plan to publish papers as soon as received, without further delays. Volume 1 is now complete and issues no. 3 and 4 will be mailed before the end of the year.

One notable addition is that copy will be set in type for each issue, IF we are provided with floppy discs of the article which can be edited in Gainesville (Wordstar, IBM compatible), or if the author follows editing instructions which we can provide (write for details). In these cases, typesetting is provided at no extra charge.

In addition to "INSECTA MUNDI," the following series and serials are published under the E.J. Brill/Flora & Fauna Publications imprint:

FLORA & FAUNA HANDBOOK SERIES

NATURALISTS' DIRECTORY & ALMANAC (INTERNATIONAL)

COLEOPTERORUM CATALOGUS

NORTH AMERICAN BEETLE FAUNA SERIES

LEPIDOPTERORUM CATALOGUS

ATLAS OF NEOTROPICAL LEPIDOPTERA

In addition to these books, E.J. Brill publishes dozens of other serials including FAUNA ENTOMOLOGICAL SCANDINAVICA, ENTOMOGRAPH, AUSTRALIAN JOURNAL OF ZOOLOGY SUPPLEMENTARY SERIES, and many, many more books on entomology and biology.

A complete catalog of publications of interest to our North American customers is being prepared. Books are stocked in the New York office. In addition, our publications are handled in offices in Bangladesh, India, Japan, Malaysia, Pakistan, London, and Tunisia.

Address all editorial matters to: Dr. Ross H. Arnett, Jr., Acquisitions Editor, E.J. Brill/Flora & Fauna Publications, 4300 NW 23rd Ave., Suite 100, Gainesville, FL 32606 USA. (Phone: 904-371-9858)

Orders should be sent to: E.J. Brill, Publishers, 225 West 57th St., Suite 404, New York, NY 10019 USA. (Phone: 212-757-7628)